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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,983	09/10/2003	Timothy A. Hovanec	P 0284779 081289	6073

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EXAMINER
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STEADMAN, DAVID J

ART UNIT	PAPER NUMBER
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1656

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/659,983

**Applicant(s)**

HOVANEK, TIMOTHY A.

**Examiner**

David J. Steadman

**Art Unit**

1656

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-33 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

**DETAILED ACTION**

***Status of the Application***

- [1] The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 1656.
- [2] Claims 1-33 are pending in the application.
- [3] For purposes of grouping claims for restriction, the examiner has interpreted claim 33 as being dependent upon claim 32.
- [4] Receipt of information disclosure statements, filed on 9/10/2003, 10/22/2003, and 6/8/2004, is acknowledged.
- [5] Receipt of a substitute sequence listing in computer readable form (CRF), a paper copy thereof, a statement of their sameness, and a statement that the paper copy of the substitute sequence listing introduces no new matter, all filed on 4/22/2004, is acknowledged.
- [6] In order to perfect sequence compliance, applicant is required to submit an amendment directing entry of the substitute sequence listing filed on 4/22/2004 into the specification.
- [7] The priority claim at the first paragraph of the specification should be updated to provide the status of US non-provisional application 09/573,684.

***Election/Restrictions***

- [8] Restriction to one of the following inventions is required under 35 U.S.C. 121:

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- I. Claims 1-9, 14-16, 20-21, 24-25, and 32-33, drawn to the isolated nucleic acid of SEQ ID NO:1, an isolated bacterial strain comprising SEQ ID NO:1, a composition or biologically pure culture thereof, and a composition comprising at least one other bacterial strain comprising SEQ ID NO:2, 3, 4, 18, 19, and/or 20, classified in class 435, subclass 252.4.
- II. Claims 1-9, 14-16, 20-21, and 32-33, drawn to the isolated nucleic acid of SEQ ID NO:2, an isolated bacterial strain comprising SEQ ID NO:2, a composition or biologically pure culture thereof, and a composition comprising at least one other bacterial strain comprising SEQ ID NO:1, 3, 4, 18, 19, and/or 20, classified in class 435, subclass 252.4.
- III. Claims 1-9, 14-16, 20-21, and 32-33, drawn to the isolated nucleic acid of SEQ ID NO:3, an isolated bacterial strain comprising SEQ ID NO:3, a composition or biologically pure culture thereof, and a composition comprising at least one other bacterial strain comprising SEQ ID NO:1, 2, 4, 18, 19, and/or 20, classified in class 435, subclass 252.4.
- IV. Claims 1-9, 14-16, 20-21, and 32-33, drawn to the isolated nucleic acid of SEQ ID NO:4, an isolated bacterial strain comprising SEQ ID NO:4, a composition or biologically pure culture thereof, and a composition comprising at least one other bacterial strain comprising SEQ ID NO:1, 2, 3, 18, 19, and/or 20, classified in class 435, subclass 252.4.
- V. Claims 10-13, 17-19, 22-23, and 32-33, drawn to the isolated nucleic acid of SEQ ID NO:18, a composition comprising an isolated bacterial strain

comprising SEQ ID NO:18, and a composition comprising at least one other bacterial strain comprising SEQ ID NO:1, 2, 3, 4, 19, and/or 20, classified in class 435, subclass 252.4.

- VI. Claims 10-13, 17-19, 22-23, and 32-33, drawn to the isolated nucleic acid of SEQ ID NO:19, a composition comprising an isolated bacterial strain comprising SEQ ID NO:19, and a composition comprising at least one other bacterial strain comprising SEQ ID NO:1, 2, 3, 4, 18, and/or 20, classified in class 435, subclass 252.4.
- VII. Claims 10-13, 17-19, 22-23, and 32-33, drawn to the isolated nucleic acid of SEQ ID NO:20, a composition comprising an isolated bacterial strain comprising SEQ ID NO:20, and a composition comprising at least one other bacterial strain comprising SEQ ID NO:1, 2, 3, 4, 18, and/or 19, classified in class 435, subclass 252.4.
- VIII. Claims 24-25, drawn to the oligonucleotide probe of SEQ ID NO:5, classified in class 536, subclass 24.32.
- IX. Claims 24-25, drawn to the oligonucleotide probe of SEQ ID NO:8, classified in class 536, subclass 24.32.
- X. Claims 26-27, drawn to the oligonucleotide probe of SEQ ID NO:21, classified in class 536, subclass 24.32.
- XI. Claims 28-29, drawn to the PCR primer of SEQ ID NO:6, classified in class 536, subclass 24.33.

- XII. Claims 28-29, drawn to the PCR primer of SEQ ID NO:7, classified in class 536, subclass 24.33.
- XIII. Claims 28-29, drawn to the PCR primer of SEQ ID NO:9, classified in class 536, subclass 24.33.
- XIV. Claims 28-29, drawn to the PCR primer of SEQ ID NO:10, classified in class 536, subclass 24.33.
- XV. Claims 28-29, drawn to the PCR primer of SEQ ID NO:11, classified in class 536, subclass 24.33.
- XVI. Claims 28-29, drawn to the PCR primer of SEQ ID NO:12, classified in class 536, subclass 24.33.
- XVII. Claims 28-29, drawn to the PCR primer of SEQ ID NO:13, classified in class 536, subclass 24.33.
- XVIII. Claims 28-29, drawn to the PCR primer of SEQ ID NO:14, classified in class 536, subclass 24.33.
- XIX. Claims 28-29, drawn to the PCR primer of SEQ ID NO:15, classified in class 536, subclass 24.33.
- XX. Claims 28-29, drawn to the PCR primer of SEQ ID NO:16, classified in class 536, subclass 24.33.
- XXI. Claims 28-29, drawn to the PCR primer of SEQ ID NO:17, classified in class 536, subclass 24.33.
- XXII. Claims 30-31, drawn to the PCR primer of SEQ ID NO:22, classified in class 536, subclass 24.33.

XXIII. Claims 28-29, drawn to the PCR primer of SEQ ID NO:23, classified in class 536, subclass 24.33.

[9] The inventions are distinct, each from the other because:

[10] Inventions I-VII are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable. In the instant case each subcombination of Group I, II, III, IV, V, VI, or VII has separate utility such as oxidizing ammonia to nitrite. See MPEP § 806.05(d).

[11] The nucleic acids of Groups I-VII, the probes of Groups VIII-X, and the primers of Groups XI-XXIII are structurally distinct and no single nucleic acid, probe, or primer of Groups I-XXIII would render the others obvious to one of ordinary skill in the art.

[12] MPEP § 803 sets forth two criteria for a proper restriction between patentably distinct inventions: (A) The inventions must be independent or distinct as claimed and (B) There must be a serious burden on the examiner. As shown above, the inventions of Groups I-XXIII are independent or distinct, thus satisfying the first criterion for a proper restriction. MPEP § 803 additionally states that a serious burden on the examiner may be *prima facie* shown if the examiner shows by appropriate explanation either separate classification, separate status in the art, or a different field of search. Because each of the nucleic acids of Groups I-XXIII is structurally distinct, a separate sequence search for each Group is required. As such, co-examination of the inventions of Groups I-XXIII would require a serious burden on the examiner.

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**[13]** Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

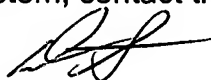
**[14]** Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

**[15]** Claims 1-5, 10, 14-15, 17-18, 20-25, and 28-33 will be examined only to the extent the claims read on the elected subject matter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David J. Steadman whose telephone number is 571-272-0942. The examiner can normally be reached on Mon to Thurs, 6:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathleen Kerr can be reached on 571-272-0931. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David J. Steadman, Ph.D.  
Primary Examiner  
Art Unit 1656